

CONTENTS

IBM 1014
REMOTE INQUIRY UNIT

[illegible]

DATE	CHANGE NO	DATE	CHANGE NO
	1151808		
2-25-63	115210		
3-26-63	115211		

INTERNATIONAL BUSINESS MACHINES CORP.					
NAME		WIRING DIAGRAM-1014 REMOTE			
INQUIRY UNIT					
DESIGN	AJR	11-5-62	TYPE	1014	
DETAIL	AJR	11-5-62	SCALE	NONE	
CHECK	J.P.B.	11-15-62	DRAW	VE	11-8-62
APPRO	<i>[Signature]</i>	11-15-62	CHECK		

1014 POWER SUPPLY

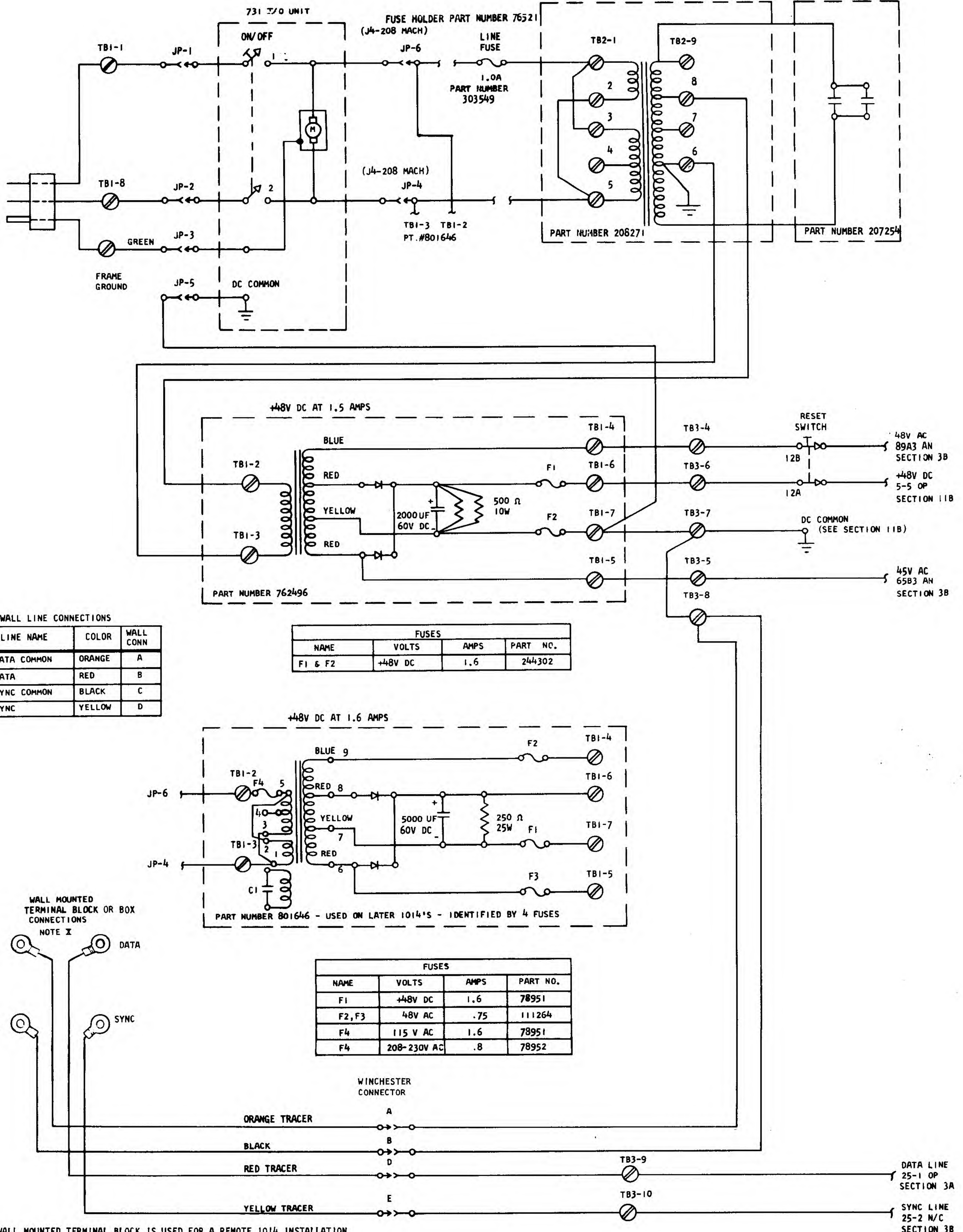
731990

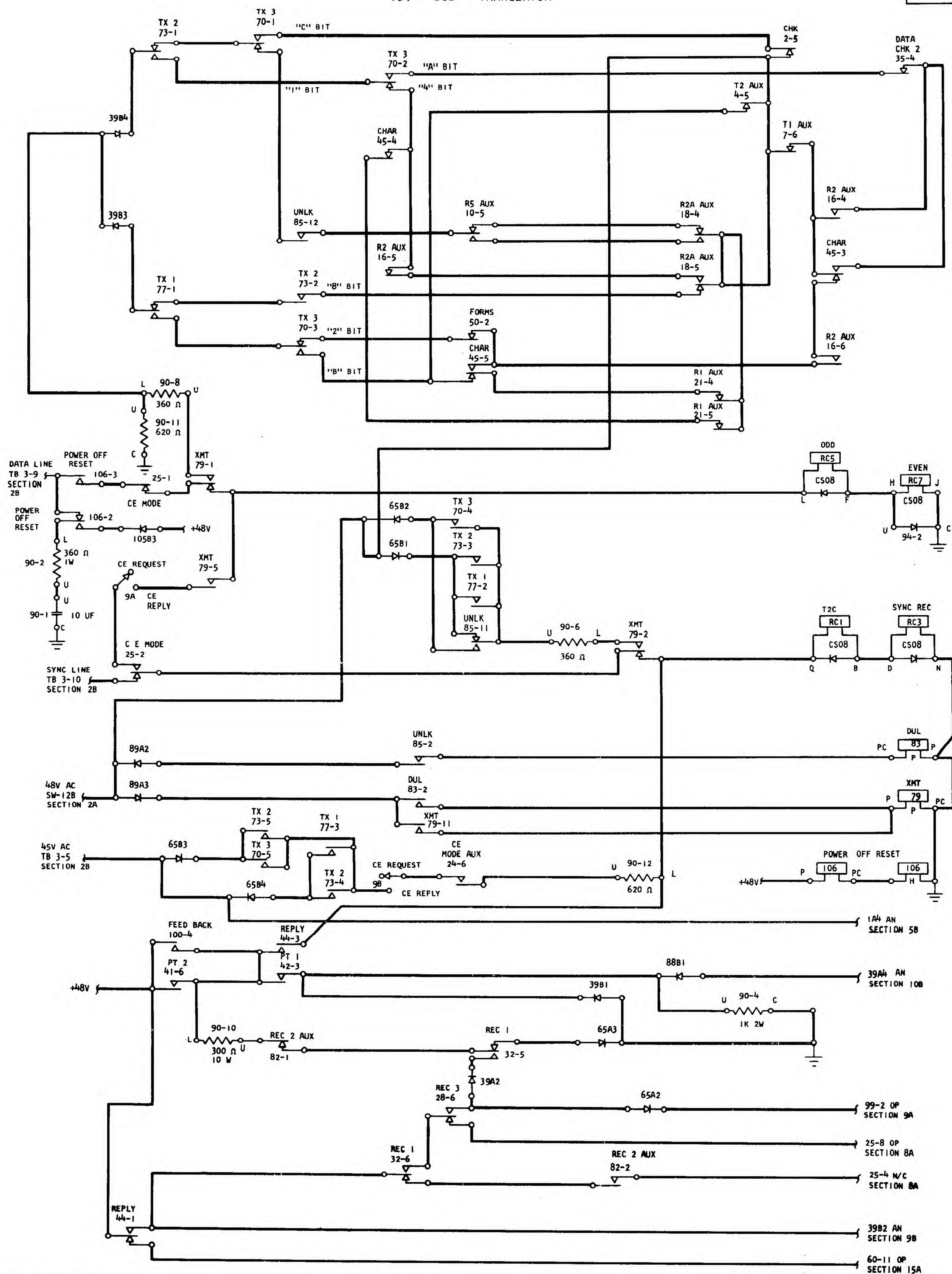
DATE	CHANGE NO.
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FERRO RESONANT VOLTAGE REGULATOR OR SUPPLY

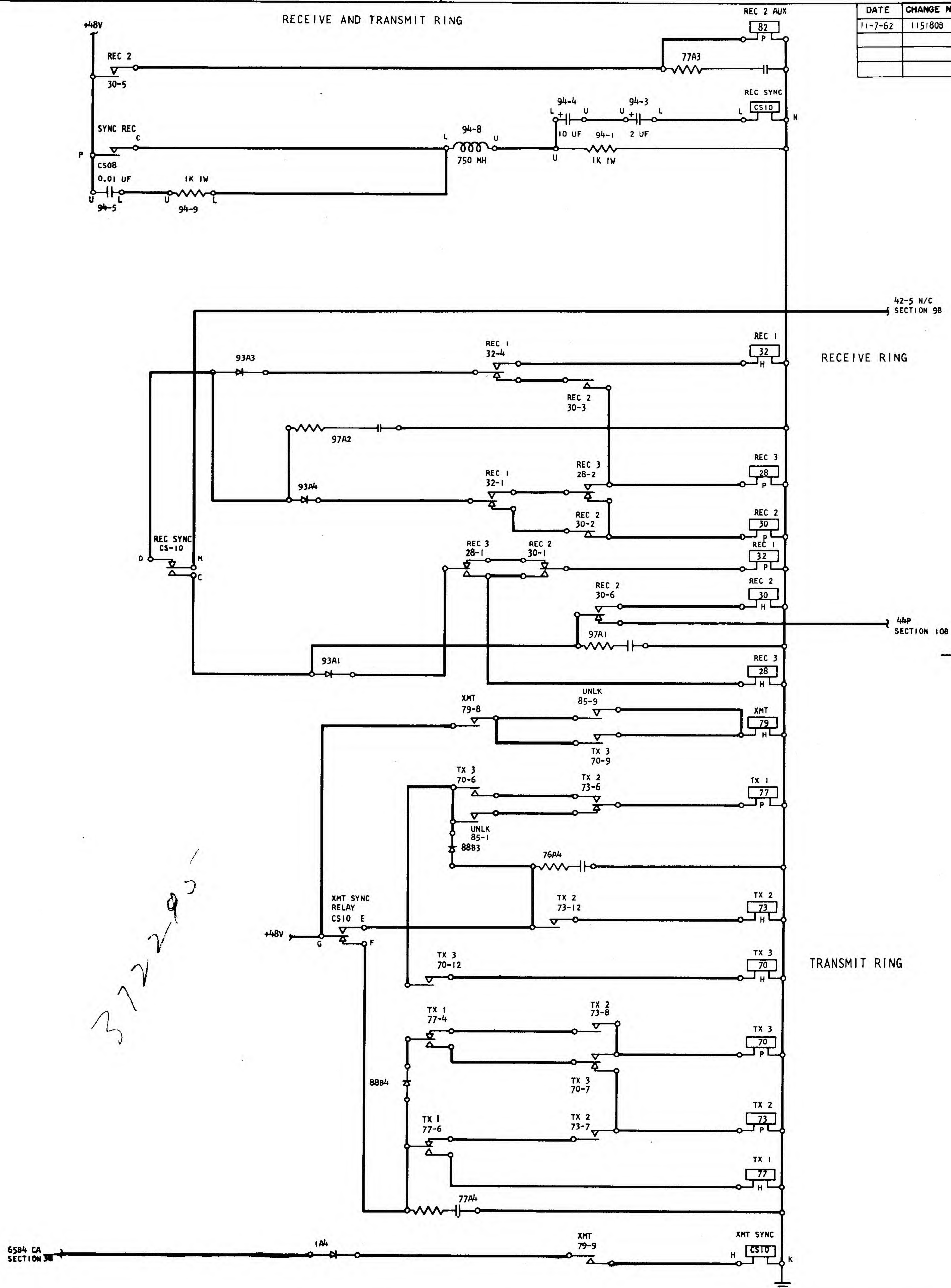
INPUT VOLTAGE	JUMPER	LINE CONNECTIONS
115	1 TO 3, 2 TO 5	1,5
208	2 TO 3	1,4
230	2 TO 3	1,5

TERMINAL BLOCK LOCATIONS:
TB1 - POWER SUPPLY
TB2 - FERRO RESONANT REGULATOR
TB3 - RELAY GATE



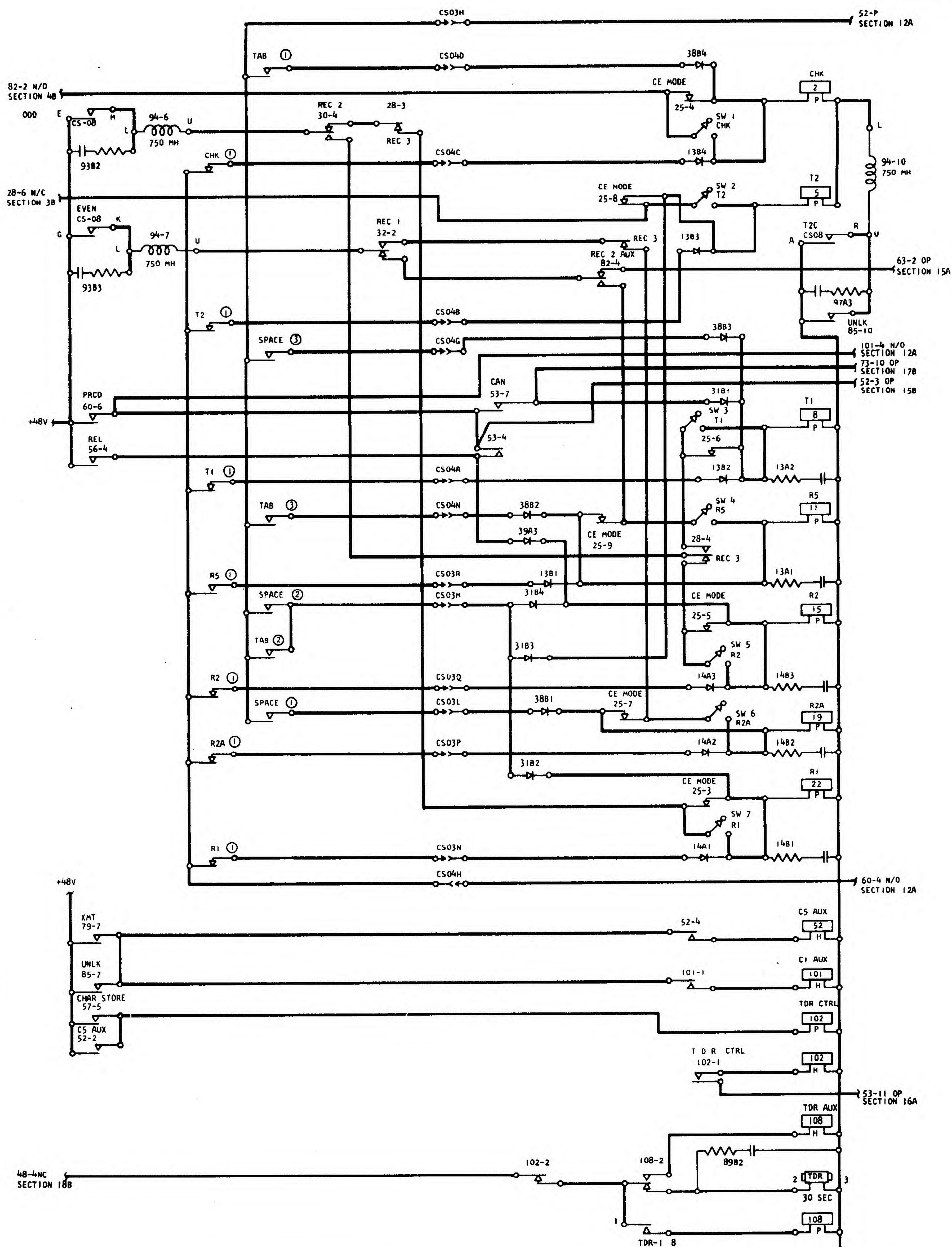
731 BCD TRANSLATOR

DATE	CHANGE NO.
11-7-62	1151808



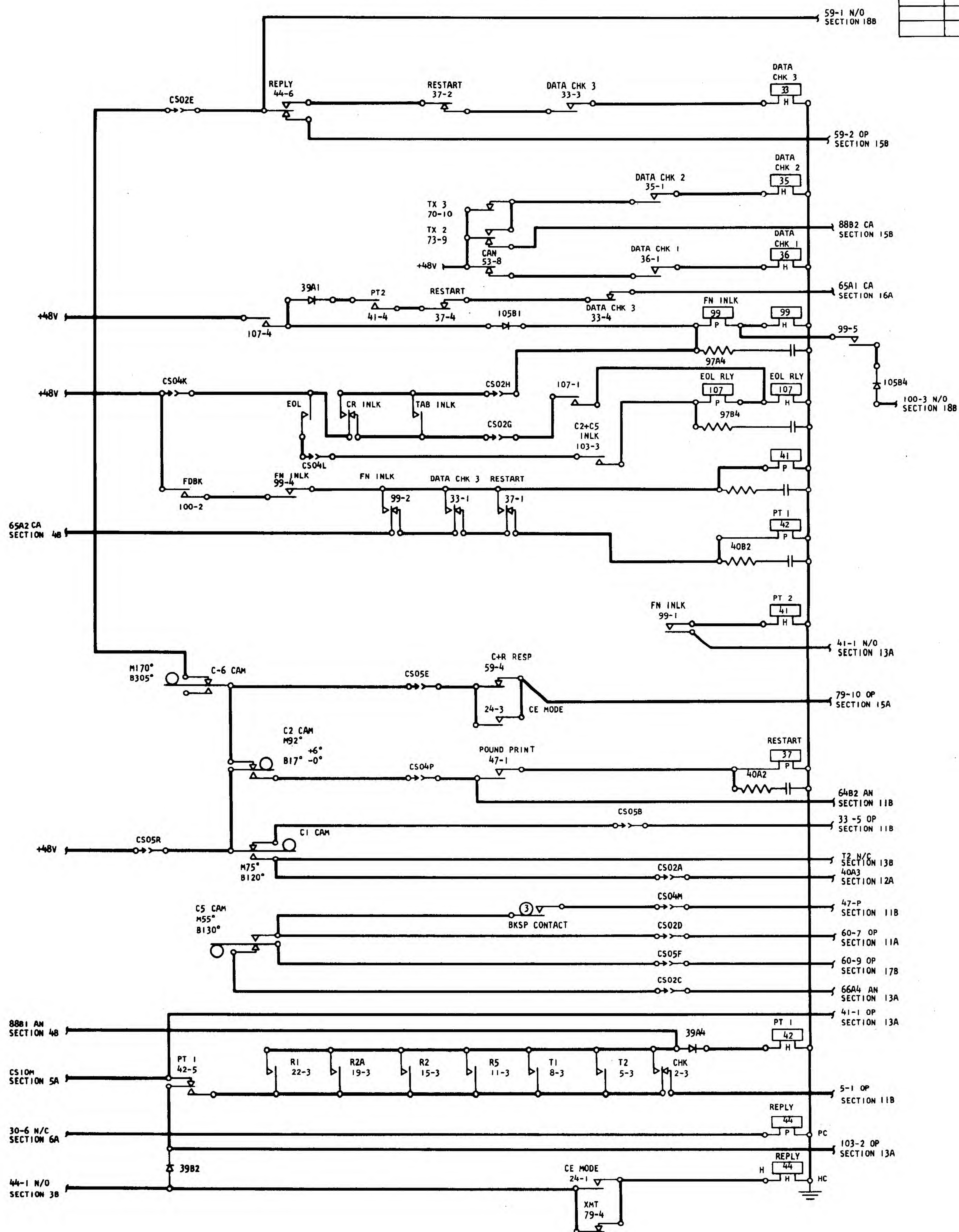
DATA REGISTER

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11-7-62	1151800
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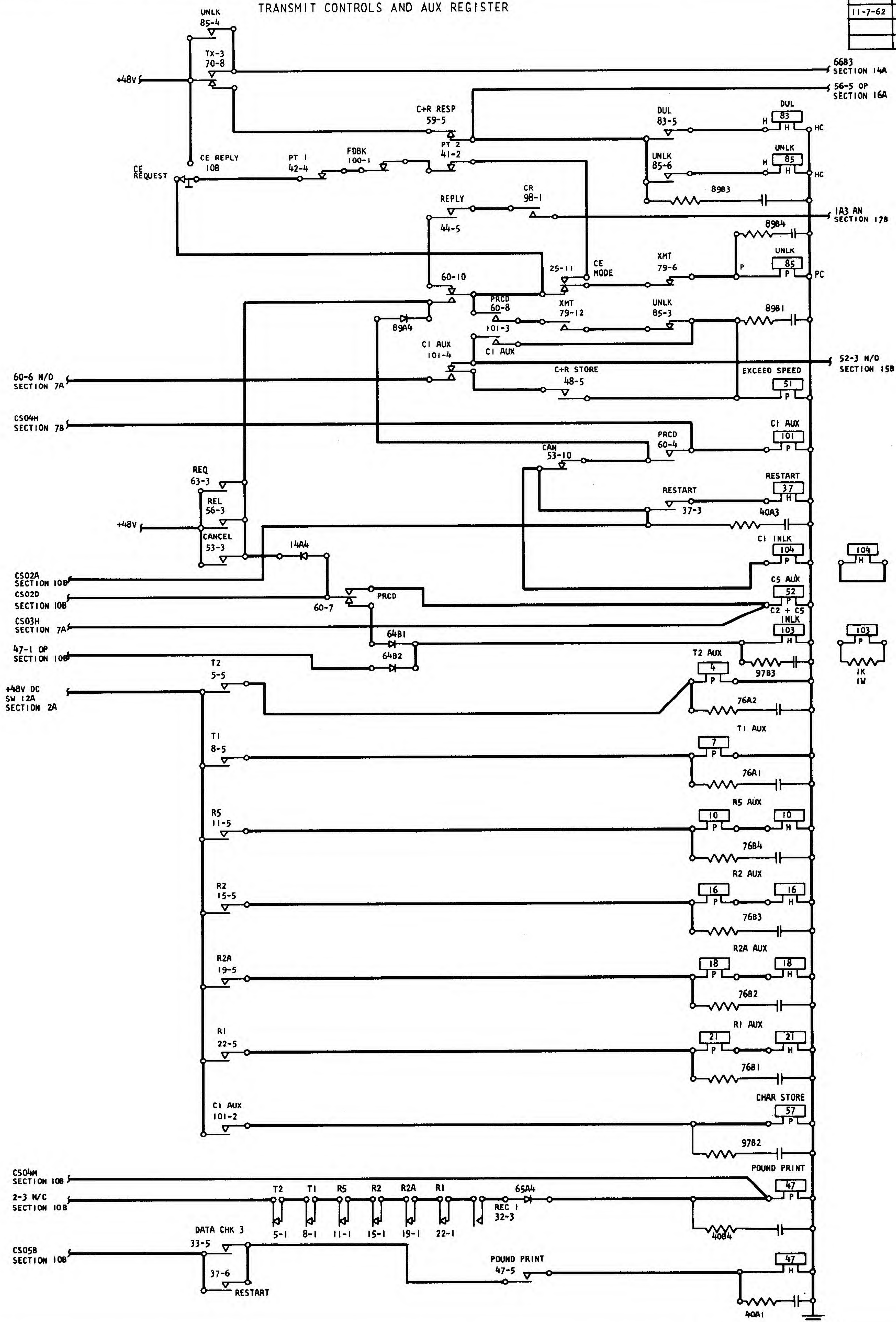
DATA CHK AND FUNCTIONAL INLK

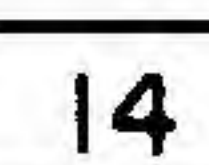
DATE	CHANGE NO.
11-7-62	115180B



TRANSMIT CONTROLS AND AUX REGISTER

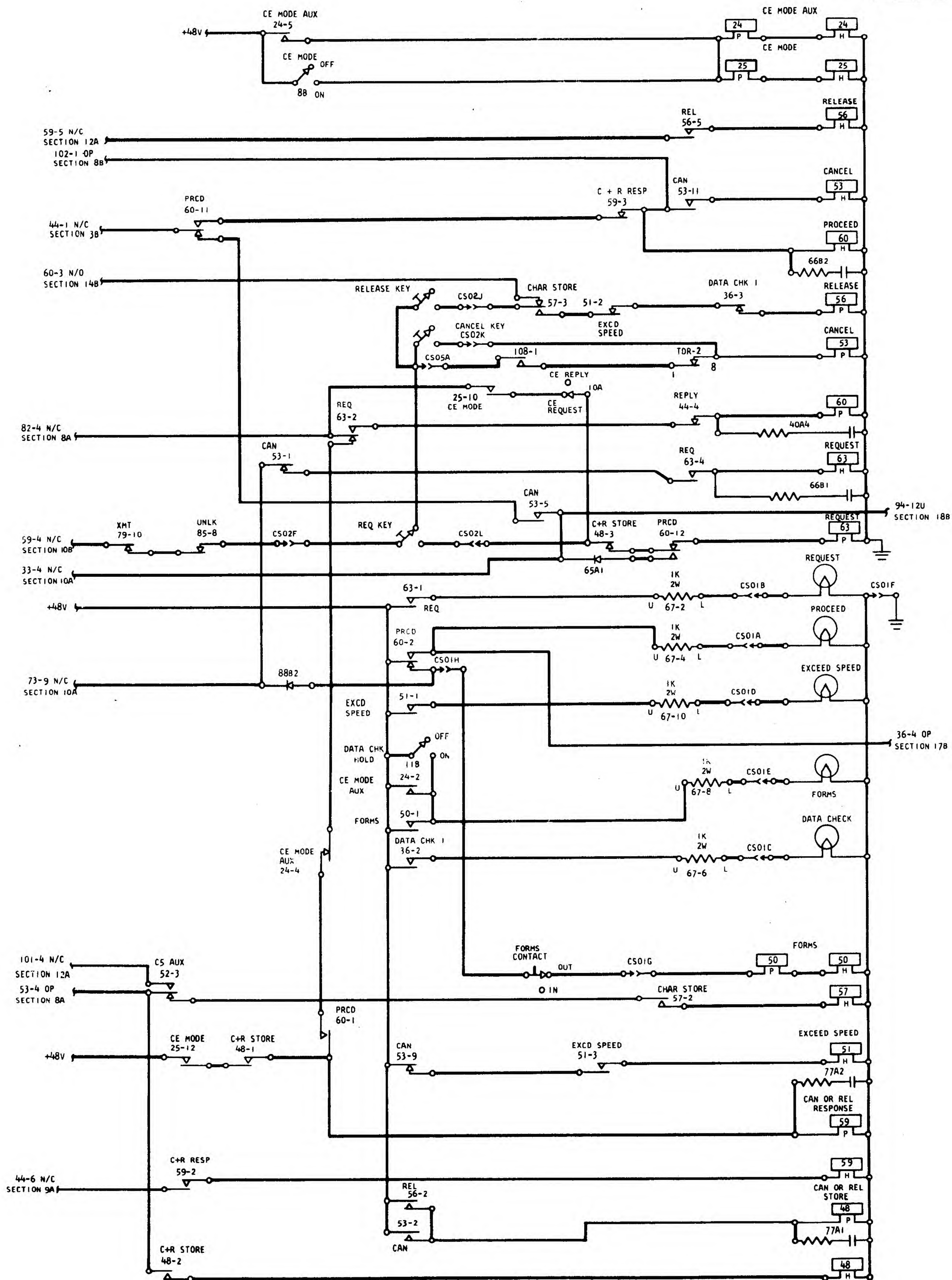
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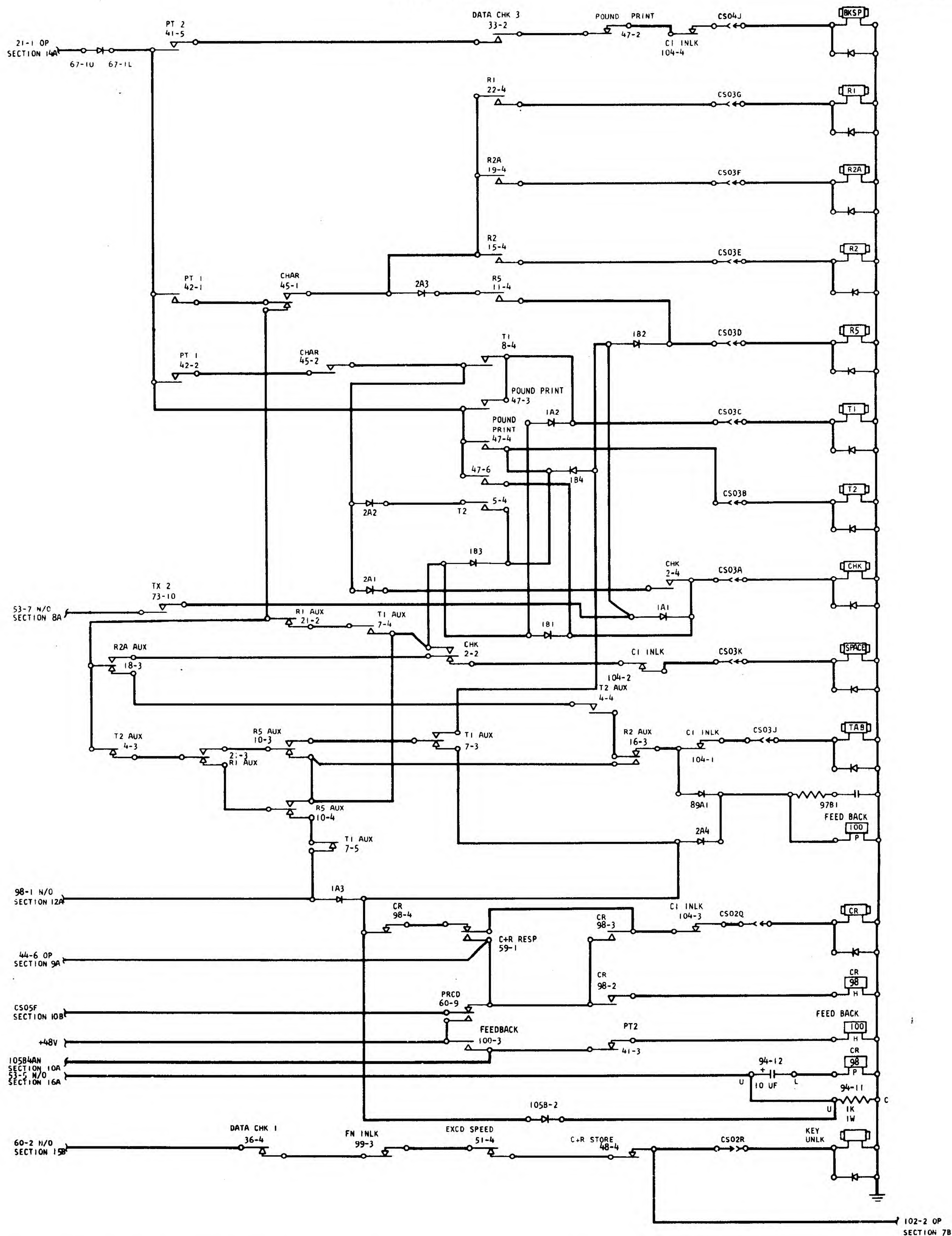
PARITY NETWORK AND DATA REG HOLD

REQUEST CONTROLS

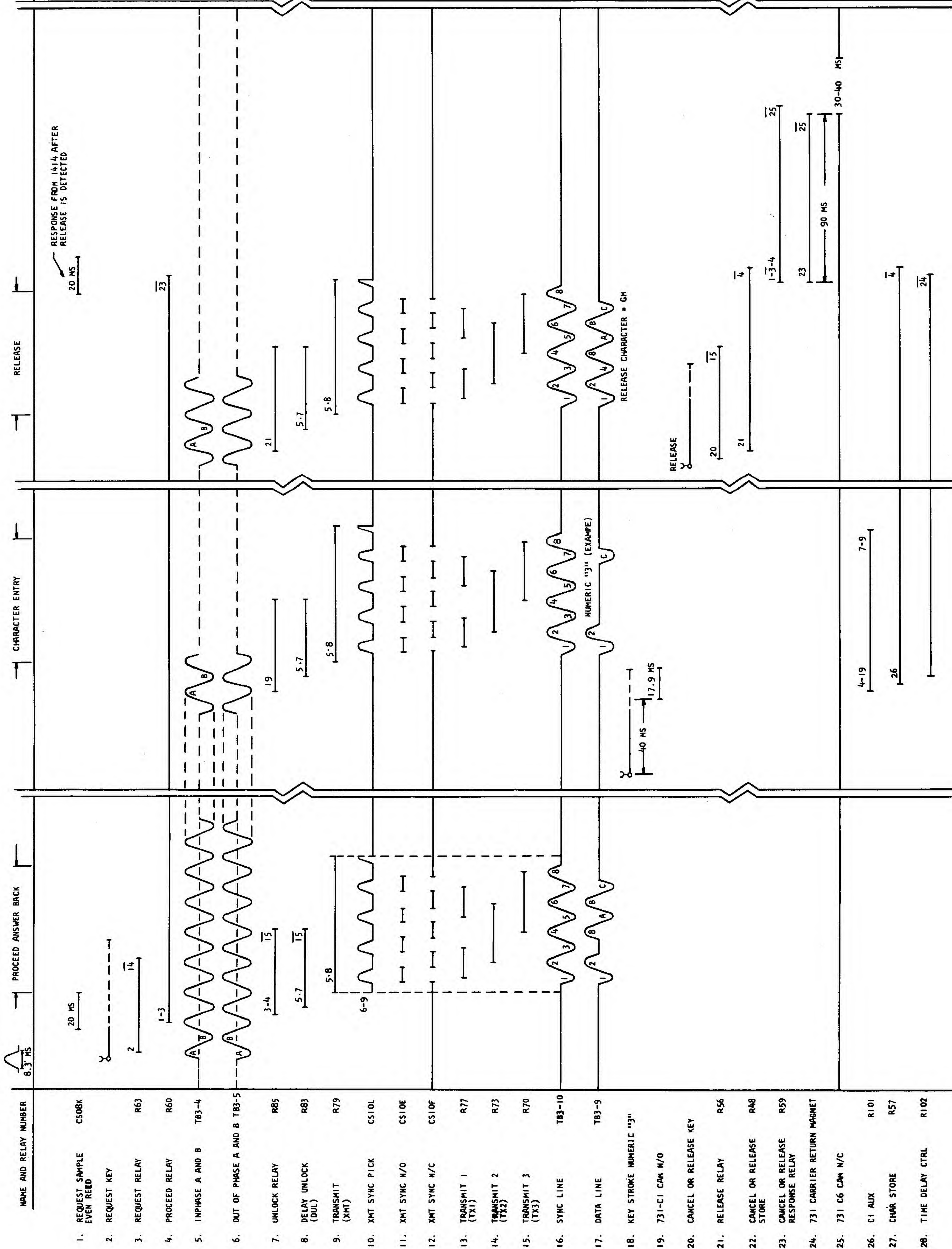
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DATE	CHANGE NO.
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1014 REQUEST/PROCEED SEQUENCE



TIMING CHART

20

731999

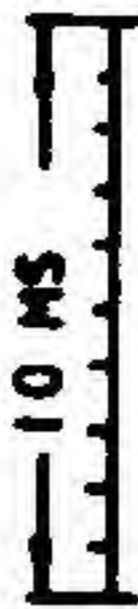
DATE	CHANGE NO.
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20

1014 REPLY MODE DATA CHECK - BACKSPACE
OVERPRINT SEQUENCE

TIMING CHART

SCALE



NAME AND RELAY NUMBER

1. DATA LINE

TB3-9

2. SYNC LINE

TB3-10

3. SYNC REED

CS08C

4. RECEIVE SYNC N/O CS10C

5. RECEIVE SYNC N/C CS10D

6. RECEIVE 1

R32

7. RECEIVE 2

R30

8. RECEIVE 3

R28

9. REPLY

R44

10. ODD REED

CS08M

11. EVEN REED

CS08K

12. T2C REED

CS08R

13. DATA CHECK 3

R33

14. PRINT TRANSFER 2 (PT2)

R41

15. 731 BACKSPACE MAGNET

16. 731 C5 CAM

17. BACKSPACE CONTACT

18. POUND PRINT

R47

19. 731 PRINT MAGNETS (T1, T2, CHK)

20. 731 C2 CAM N/O

21. 731 C1 CAM N/O

22. RESTART

R37

23. PRINT TRANSFER 1 (PT1)

R42

CHARACTER RECEIVE CYCLE
THIS CHARACTER IS HELD IN I/O REGISTER UNTIL END OF
THE POUND SIGN OVERPRINT CYCLE

EXAMPLE CHARACTER "A" IS RECEIVED



FEEDBACK VOLTAGE ON SYNC LINE PREVENTS TRANSMIT OF NEXT CHARACTER DURING BACKSPACE AND OVERPRINT

PRINTING OF EXAMPLE
CHARACTER "A" FOLLOWS.
INITIATED BY PT1.

21

22

732000

DATE	CHANGE NO.
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22

6-8-13

14-13

37 MS

27 MS

43 MS

16-17

18

27 MS

C2 CAM - 26.9 MS

20 MS

C1 CAM - 16.1 MS

18-20

21

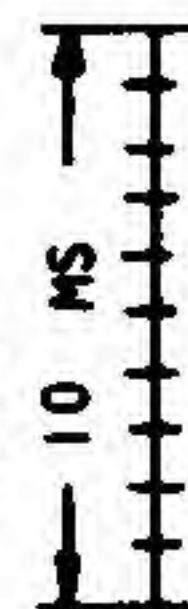
21

22

DATE	CHANGE NO.
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1014 REPLY MODE
END OF RECORD CYCLE

SCALE



NAME AND RELAY NUMBER

REPLY ANSWER BACK

END OF RECORD CHARACTER

1. DATA LINE TB3-9

2. SYNC LINE TBS-10

3. SYNC REED CS08C

4. RECEIVE SYNC N/O CS10C

5. RECEIVE SYNC N/C CS10D

6. RECEIVE 1 R32

7. RECEIVE 2 R30

8. RECEIVE 3 R32

9. REPLY R44

10. ODD DATA REED CS08H

11. T2C REED CS08R

12. PRINT TRANSFER 1 R42

13. UNLOCK R85

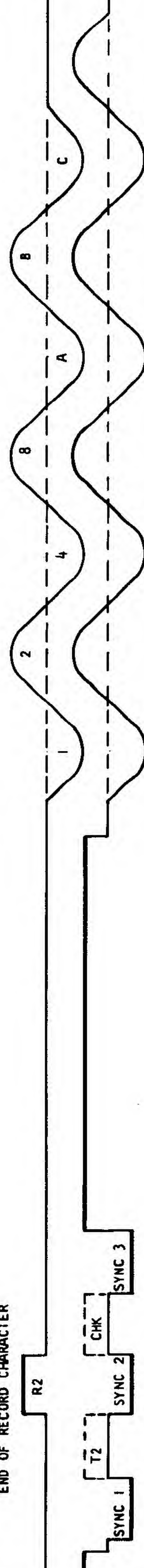
14. INPHASE A AND B TB3-4

15. DELAY UNLOCK R83

16. TRANSIT R79

17. CARRIER RETURN R98

18. 731 C6 CAM N/C



1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

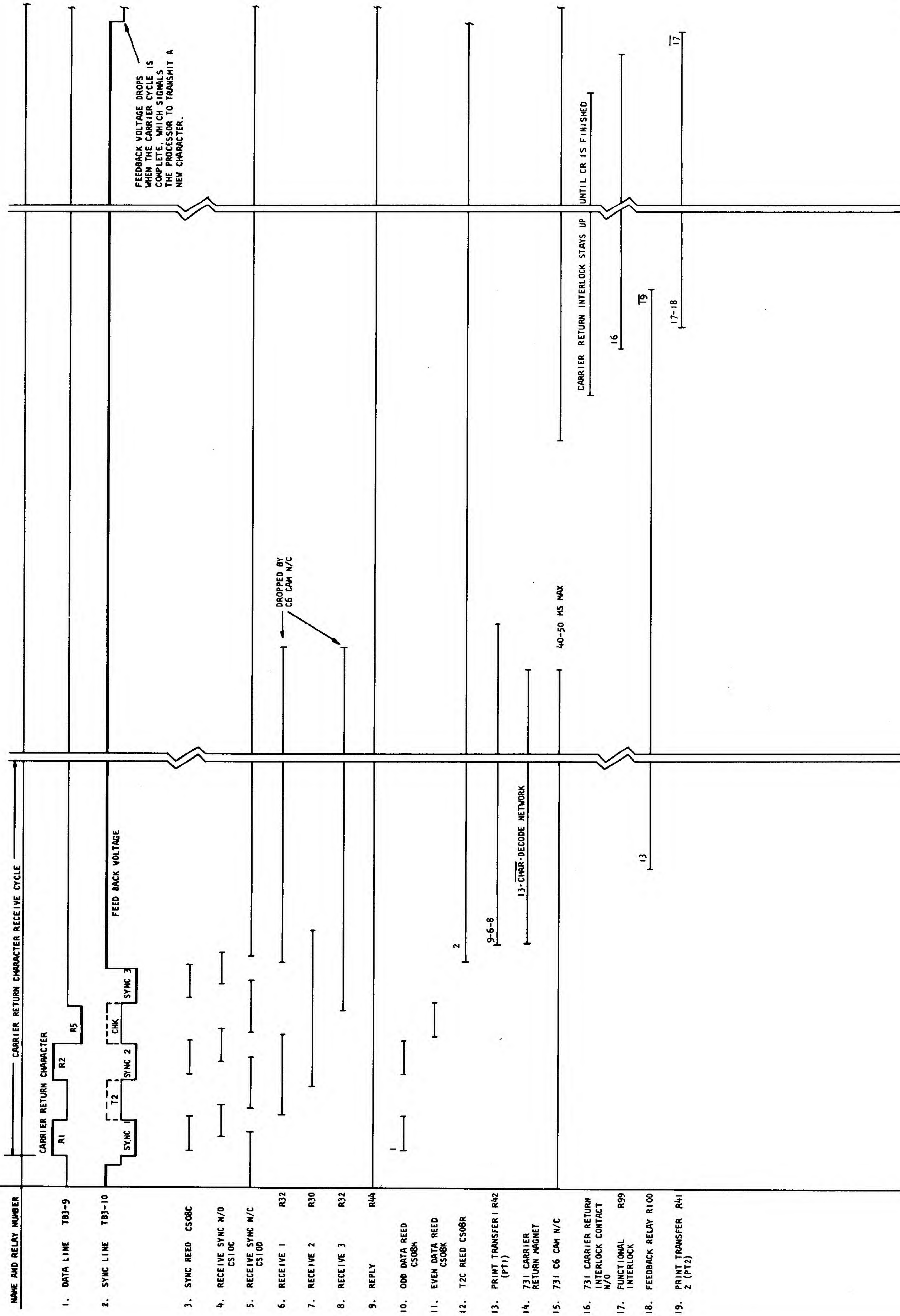
40-50 MS

TIMING CHART

DATE	CHANGE NO.
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SCALE: 10 MS

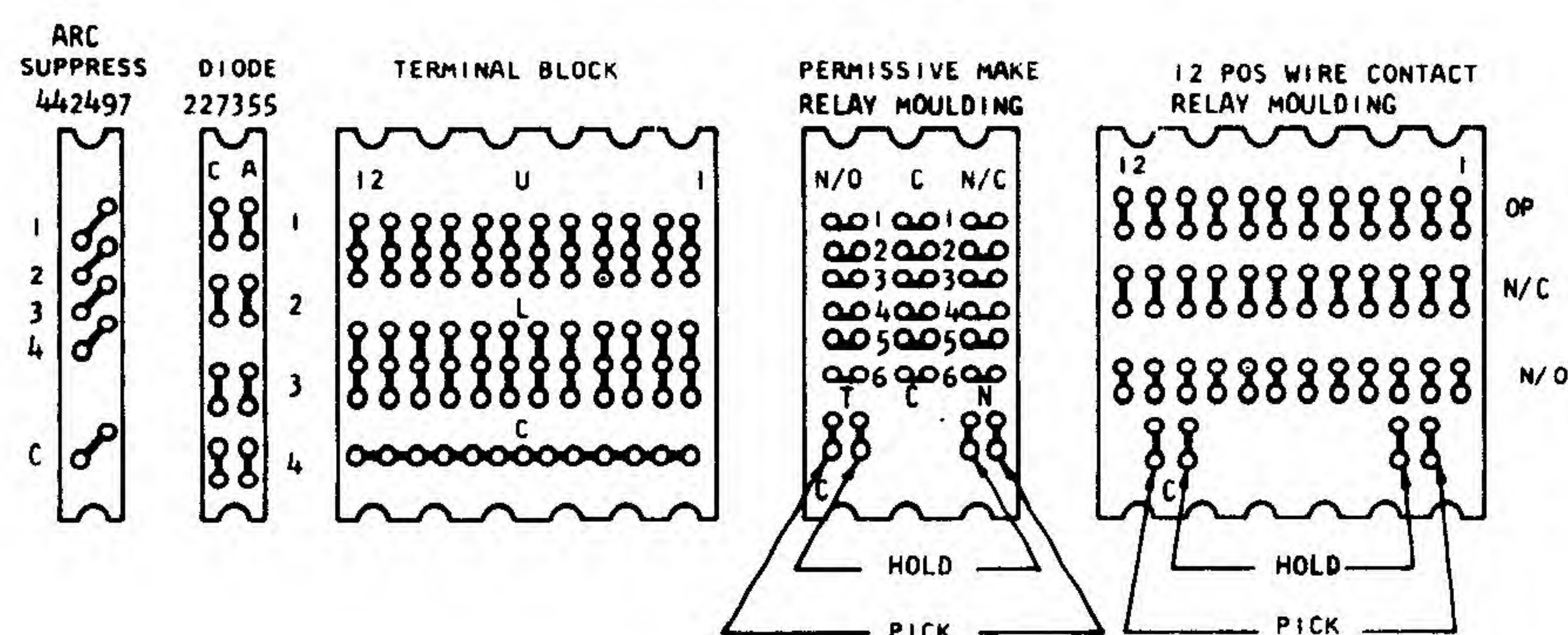
1014 REPLY MODE
CARRIER RETURN CYCLE



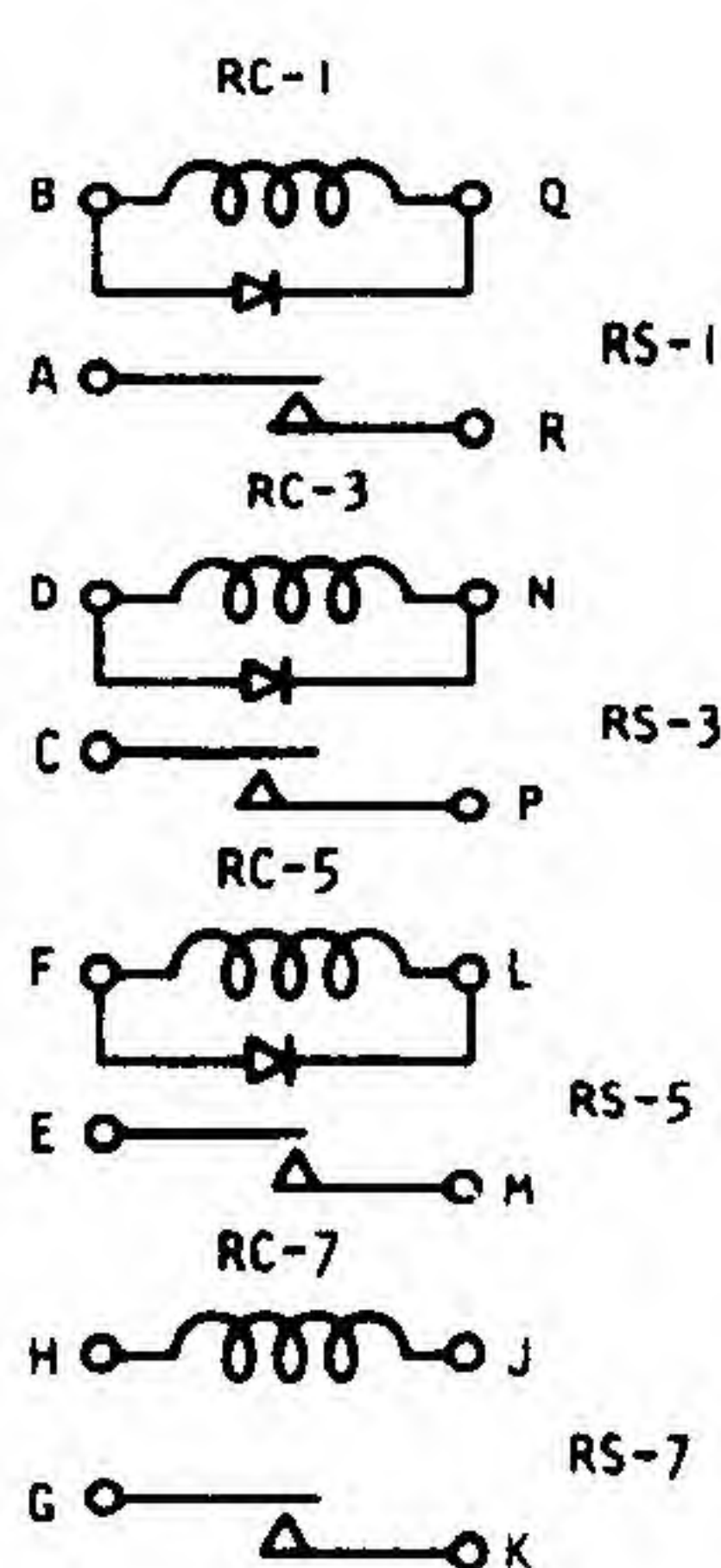
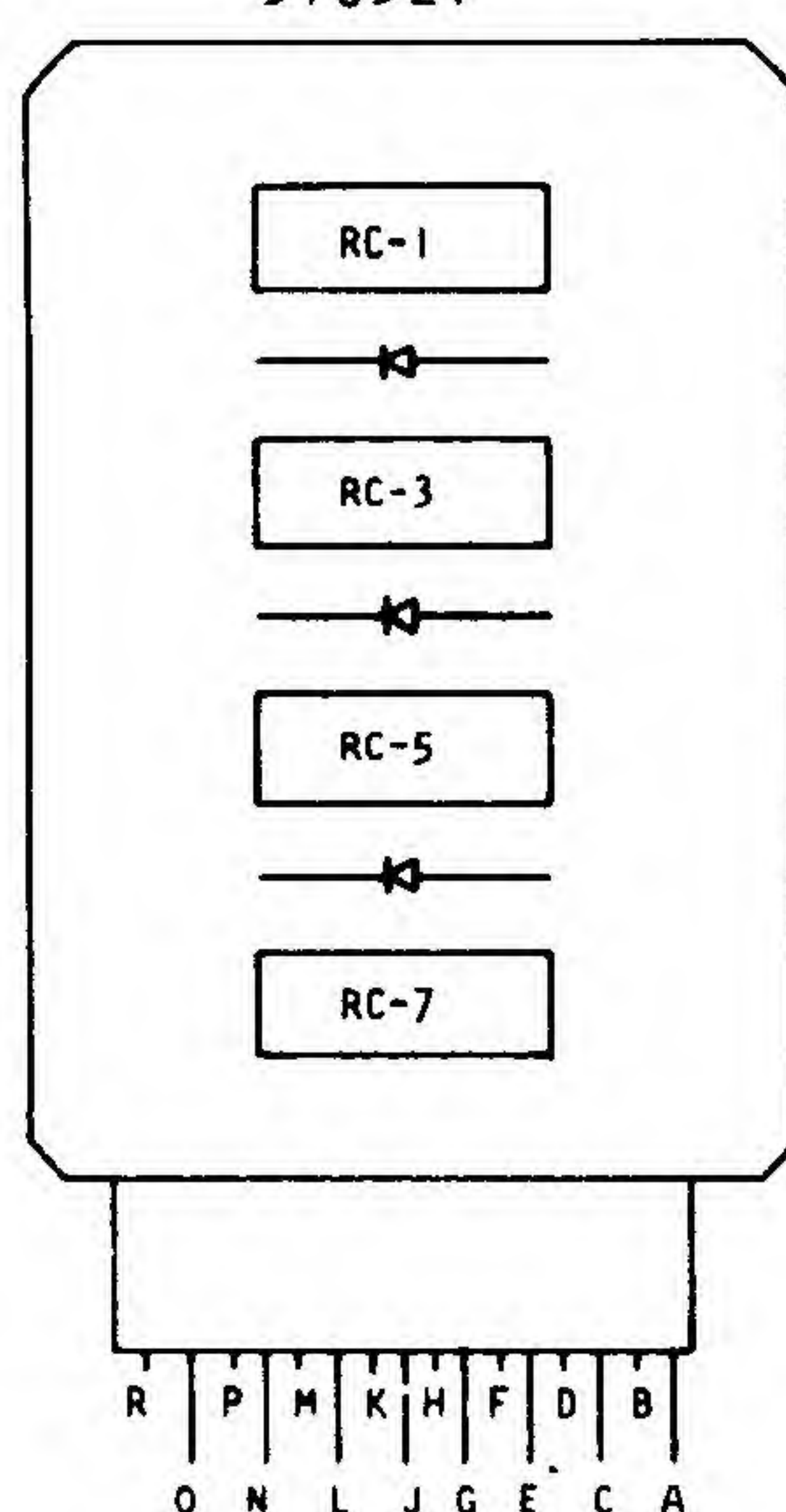
JONES PLUG J
321000 NOTE X

COMPONENT PLUGGING LOCATIONS (WIRING SIDE VIEWS)

DATE	CHANGE NO.
11-7-62	1151808
2-25-63	115210



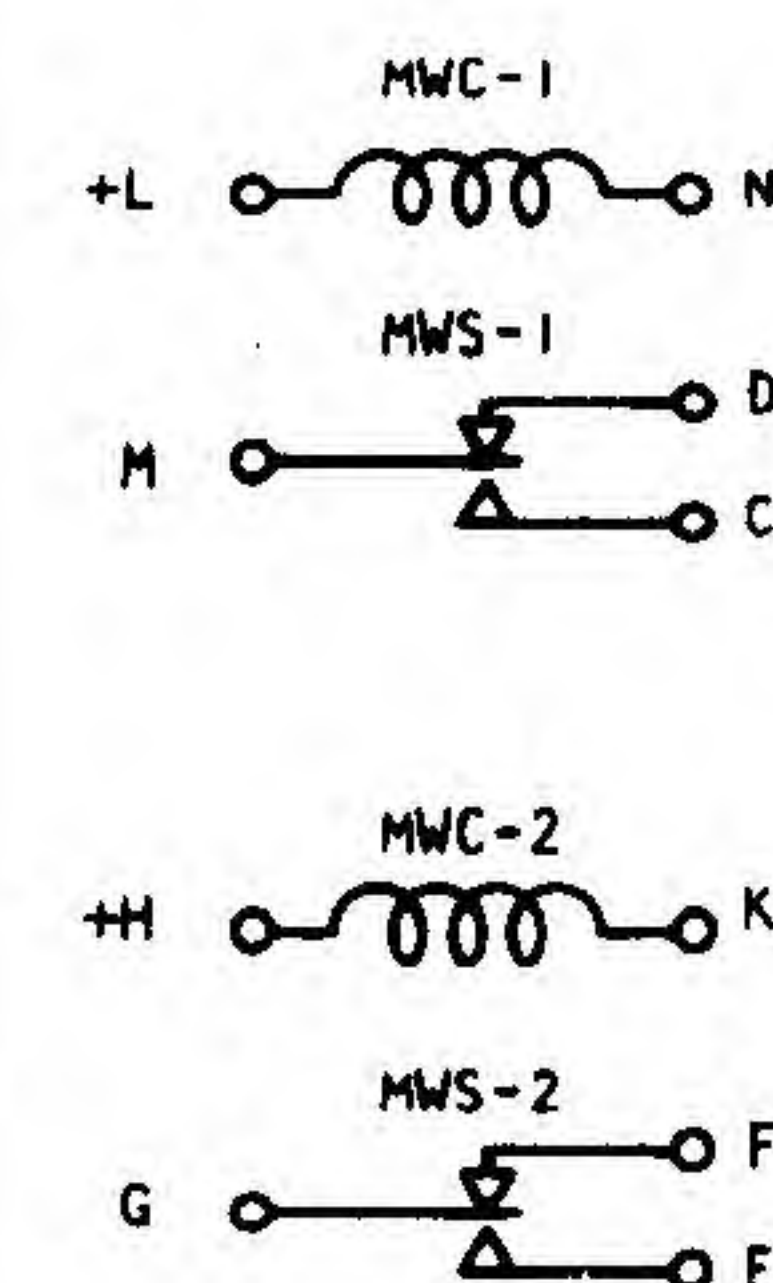
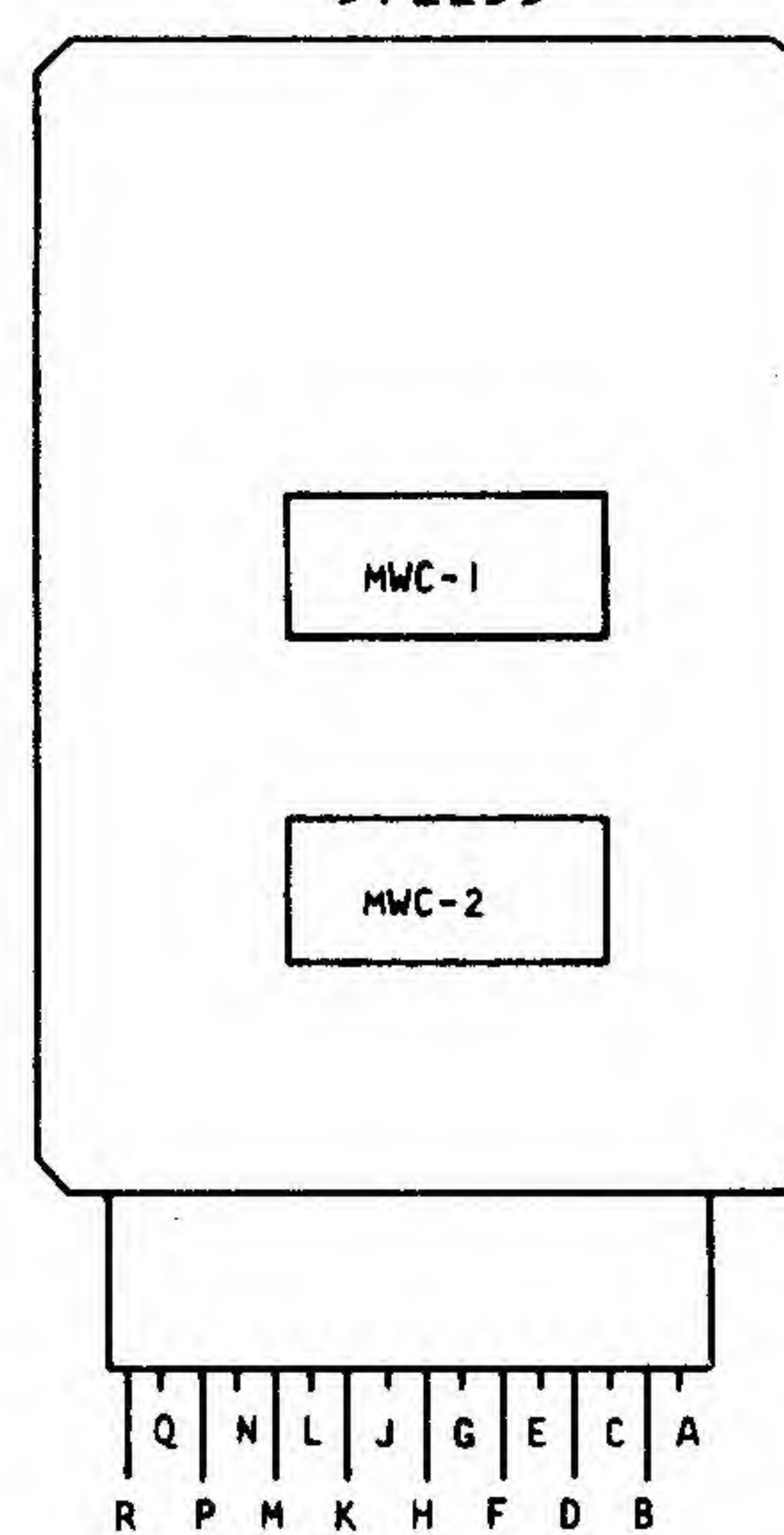
CS 08
INQ REED SWITCH
370521



REED SWITCH LOCATIONS

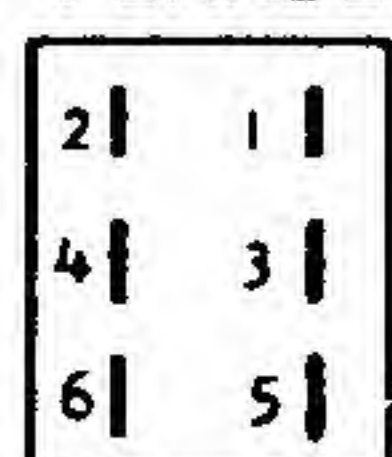
NAME	COIL	LOC	POINT	LOC
T2C	RC-1	4B	RS-1	8A
SYNC REC	RC-3	4B	RS-3	5A
ODD	RC-5	4A	RS-5	7A
EVEN	RC-7	4A	RS-7	7A

CS 10
MERCURY WETTED RELAY
372295



POINTS AND COILS
LOCATED ON SEC'S 5-6

JONES PLUG
FEMALE



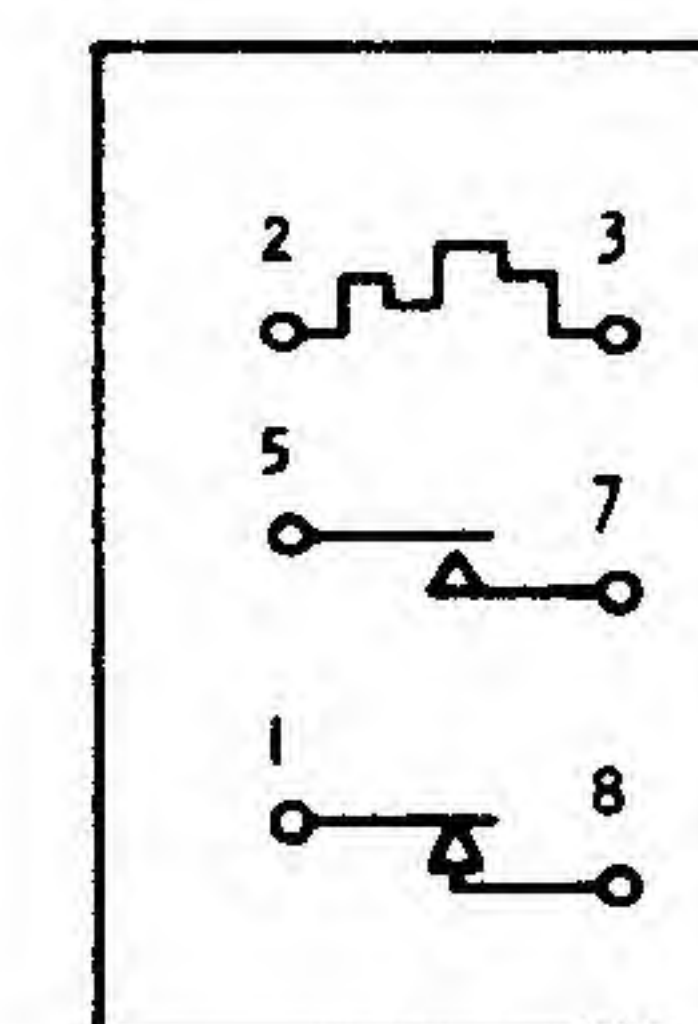
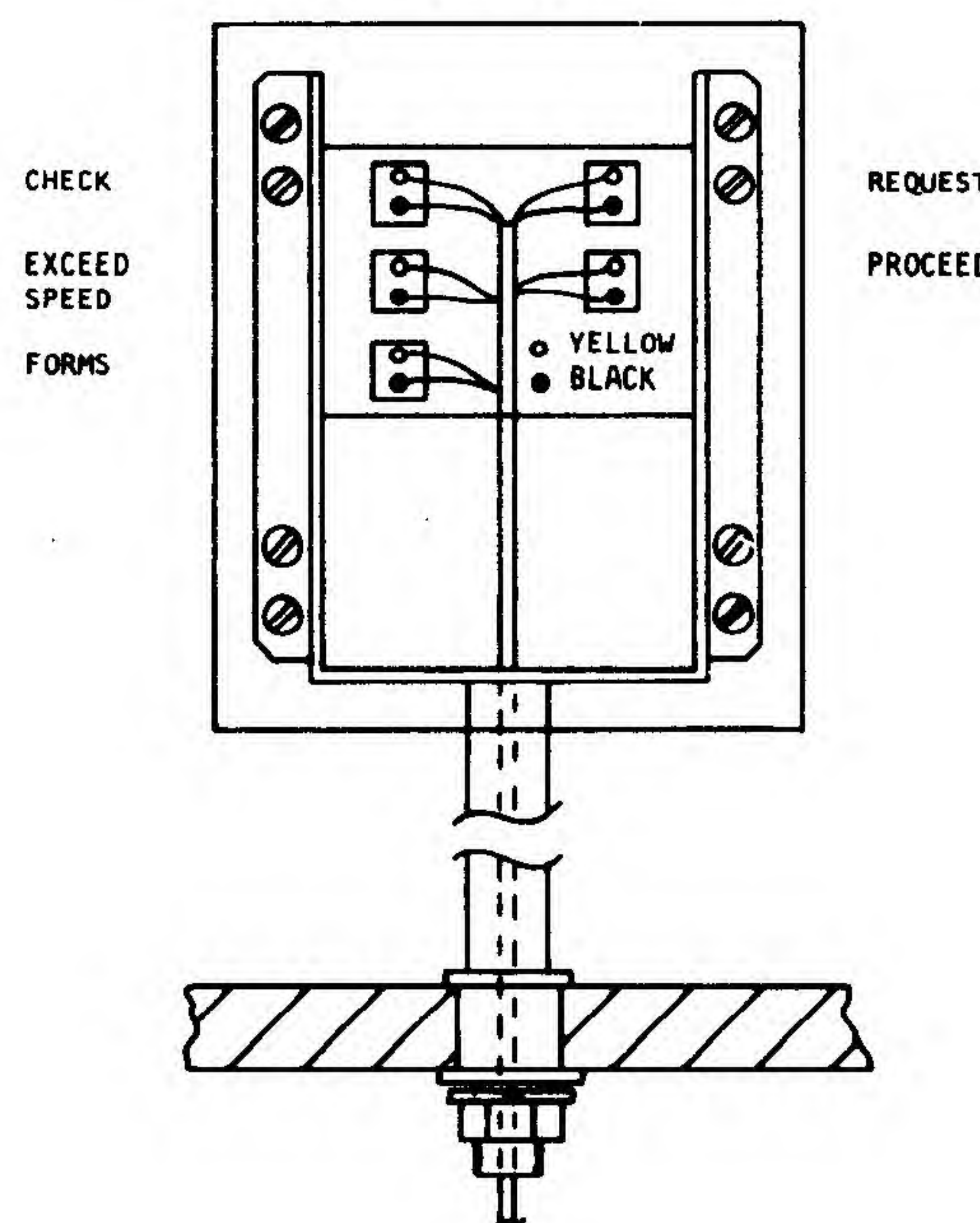
ALL PINS LOCATED
ON SEC 1A

WINCHESTER
CONNECTOR



ALL PINS LOCATED
ON SEC 1B

DISPLAY HOUSING LIGHT PANEL WIRING
WIRING SIDE



TIME DELAY RELAY
NOTE: N/C CONTACTS (1-8)
OPEN BEFORE THE N/O
CONTACTS (5-7) CLOSE.

RELAY POINT LOCATION CHART

DATE	CHANGE NO.
11-7-62	1151808
2-25-63	115210

RELAY NO	COILS			CONTACT POINTS												NAME	SIZE	TYPE CODE
	PU 1	PU 2	H	1	2	3	4	5	6	7	8	9	10	11	12			
1A				18B	18A	17B	5B									SEL DIODE	2	D
1B				18B	18A	17A	18A									SEL DIODE	2	D
2	8A		14A	13A	17B	10B	18A	4A	14A							CHECK	6	A
2A				17A	17A	17A	18B									SEL DIODE	2	D
4	12B			13A	13A	17B	18B	4A								T2 AUXILIARY	6	F
5	8A		14A	11B	14B	10B	18A	11B	14A							T2	6	A
7	12B			13A	13A	17B	17B	17B	4A							T1 AUXILIARY	6	F
8	8A		14A	11B	14B	10B	18A	11B	14A							T1	6	A
10	12B		12B	13A	13A	17B	17B	3A								R5 AUXILIARY	6	F
11	8A		14A	11B	14B	10B	18A	11B	14A							R5	6	A
13A				8A	8A											ARC SUPPRESS	2	E
13B				8A	8A	8A	8A									SEL DIODE	2	D
14A				8B	8B	8B	11A									SEL DIODE	2	D
14B				8B	8B	8B	14A									ARC SUPPRESS	2	E
15	8B		14A	11B	13B	9B	18A	11B	14A							R2	6	A
16	12B		12B	14A	14A	18B	4A	3A	4A							R2 AUXILIARY	6	F
18	12B		12B	14A	14A	17B	4A	4A								R2A AUXILIARY	6	F
19	8B		14A	11B	13B	9B	18A	11B	14A							R2A	6	A
21	12B		12B	14A	17B	17B	4A	4A	14A							R1 AUXILIARY	6	F
22	8B		14A	12B	13B	9B	18A	11B	14A							R1	6	A
24	16A		16A	10B	15B	10B	15B	15A	3B							CE MODE AUXILIARY	6	F
25	16A		16A	3A	3A	8B	8A	8B	8A	8B	8A	8A	16A	12A	15B	CE MODE	12	C
28	6A		6B	6A	6A	7A	8A	8A	3B							RECEIVE 3	6	G
30	6A		6A	6A	6A	6A	7A	5A	6A							RECEIVE 2	6	G
31B				8A	8B	8B	8B									SEL DIODE	2	D
32	6A		6A	6A	7A	12B	6A	3B	3B							RECEIVE 1	6	G
33	14B		10A	9A	18A	10A	10A	11B								DATA CHECK 3	6	F
35	14B		10A	10A			4A									DATA CHECK 2	4	B
36	14B		10A	10A	15B	16A	17B									DATA CHECK 1	4	B
37	10B		12A	10A	9A	12A	9A	14B	11B							RESTART	6	F
38B				8B	8A	8A	8A									SEL DIODE	2	D
39A				9A	3B	8A	10B									SEL DIODE	2	D
39B				4B	9B	3A	3A									SEL DIODE	2	D
40A				12B	10B	12A	16A									ARC SUPPRESS	2	E
40B				10A	10A		12B									ARC SUPPRESS	2	E
41	10A		10A	13A	12A	18B	9A	17A	3B							PRINT TRANSFER 2	6	A
42	10A		10B	17A	17A	3B	11A	9B	13B							PRINT TRANSFER 1	6	A
44	10B		10B	3B	13A	3B	16A	12A	9A							REPLY	6	A
45	14B		14B	17A	17A	4A	3A	3A	14B							CHARACTER	6	A
47	12B		12B	10B	18A	18A	18A	12B	18A							POUND PRINT	6	F
48	16B		16B	15B	15B	16A	18B	12A								CANCEL OR RELEASE STORE	6	F
50	16B		16B	15B	3A											FORMS	4	B
51	12A		16B	15B	16A	16B	18B									EXCEED SPEED	4	B
52	12A		8B		7B	15B	8B									C5-AUXILIARY	4	B
53	16A		16A	15A	15B	11A	8A	16A	13B	8A	10A	15B	12A	16A		CANCEL	12	C
56	16A		16A		15B	11A	7A	16A								RELEASE	6	F
57	12B		16B		16B	16A	13B	7B								CHARACTER STORE	6	F
59	16B		16B	17B	15B	16A	10B	12A								CANCEL OR RELEASE RESPONSE	6	F
60	16A		16A	15B	15B	14B	12A	14A	7A	11A	12A	17B	12A	15A	16A	PROCEED	12	C
63	16A		16A	15A	15A	11A	16A									REQUEST	4	B
64B				11A	11A	13B										SEL DIODE	2	D
65A				16A	4B	4B	12B									SEL DIODE	2	D
65B				3A	3A	3B	3B									SEL DIODE	2	D
66A				13A	13A	13A	13A									SEL DIODE	2	D
66B				16A	16A	14A										ARC SUPPRESS	2	E
67				17A	16A		16B		16B		16B		16B			TERMINAL BLOCK 1	12	
70	6B		6B	3A	3A	3A	3A	3B	6B	6B	11A	6B	10A	13A	5B	TRANSMIT 3	12	C
73	6B		6B	3A	3A	3A	3B	3B	6B	6B	6B	10A	17A	13B	6B	TRANSMIT 2	12	C
76A				12B	12B	14B	6B									ARC SUPPRESS	2	E
76B				12B	12B	12B	12B									ARC SUPPRESS	2	E
77	6B		6B	3A	3A	3B	5B		5B							TRANSMIT 1	6	F
77A				16B	16B	6A	6B									ARC SUPPRESS	2	E
79	4B		6B	3A	4B		10B	3A	12A	7B	6B	6B	15A	3B	12A	TRANSMIT	12	C
82	6A			3B	4B	14B	8A									RECEIVE 2 AUXILIARY	6	G
83	4B		12A		3B			12A								DELAY UNLOCK	6	F
85	12A		12A	6B	3B	12A	11A	13A	12A	7B	15A	6B	8A	3B	3A	UNLOCK	12	C
88																		
88B				4B	15B	6B	5B									SEL DIODE	2	D
89A				18B	3B	3B	11A									SEL DIODE	2	D
89B				12A	8B	12A	12A									ARC SUPPRESS	2	E
90						4B		4B		3A		3B	3A	4B		TERMINAL BLOCK 2	12	
93A				5B	14B	5A	5A									SEL DIODE	2	D
93B				7A	7A											ARC SUPPRESS	2	H
94				6A	4A	6A	6A	5A	7A	7A	6A	5A	8A	18B	18B	TERMINAL	12	
97A				6A	5A	8A	10A									ARC SUPPRESS	2	E
97B				18B	12B	12A	10A									ARC SUPPRESS	2	E
98	18B		18B	12A	18B	18B	17B									CARRIER RETURN	4	B
99	10A		10A	10A	9A	17B	9A	10A								FUNCTION INTERLOCK	6	F
100	18B		18B	11A	9A	18B	3B									FEED BACK	4	B
101	12A		8B	8B	11B	12A	12A									C1 AUXILIARY	4	B
102	8B		8B	8B	8B											TIME DELAY RELAY CONTROL	4	B
TDR	8B			8B	16A											TIME DELAY RELAY	2	

RELAY POINT LOCATION CHART

RELAY NO.	COILS			CONTACT POINTS												NAME	SIZE	TYPE CODE
	PU 1	PU 2	H	1	2	3	4	5	6	7	8	9	10	11	12			
103	12A		12A		13A	10A										C2 + C5 INTERLOCK	4	B
104	12A		12A		18B	18B	18B	18A								C1 INTERLOCK	4	B
105B					10A	18B	3A	10A								SEL DIODE	2	D
106	4B		4B			3A	3A									POWER OFF RESET	4	B
107	10A		10A		10A			10A								END OF LINE	4	B
108	8B		8B		16A	8B										TDR AUX	4	B

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S M S CARD SOCKET LOCATIONS

CS	LTR	LOC
1	A	16B
1	B	16A
1	C	16B
1	D	16B
1	E	16B
1	F	16A
1	G	16B
1	H	16B
1	J	
1	K	
1	L	
1	M	
1	N	
1	P	
1	Q	
1	R	

CS	LTR	LOC
3	A	18A
3	B	18A
3	C	18A
3	D	18A
3	E	18A
3	F	18A
3	G	18A
3	H	7A
3	J	18B
3	K	18B
3	L	7B
3	M	7B
3	N	7B
3	P	7B
3	Q	7B
3	R	7A

CS	LTR	LOC
5	A	15A
5	B	10B
	C	
	D	
5	E	9B
5	F	10B
	G	
	H	
	J	
	K	
	L	
	M	
	N	
	P	
	Q	
5	R	9B

CS	LTR	LOC
	A	
	B	
10	C	5A
10	D	5A
10	E	5B
10	F	5B
10	G	5B
10	H	6B
	J	
10	K	6B
10	L	6A
10	M	5A
10	N	6A
	P	

2	A	10B
2	B	14B
2	C	10B
2	D	10B
2	E	9A
2	F	15A
2	G	10A
2	H	10A
2	J	16A
2	K	16A
2	L	16A
	M	
	N	
	P	
2	Q	18B
2	R	18B

4	A	7A
4	B	7A
4	C	7A
4	D	7A
	E	
	F	
4	G	7A
4	H	A
4	J	18A
4	K	9A
4	L	9A
4	M	10B
4	N	7A
4	P	9B
	Q	
	R	

8	A	8A
8	B	4B
8	C	5A
8	D	4B
8	E	7A
8	F	4A
8	G	7A
8	H	4A
8	J	4A
8	K	7A
8	L	4A
8	M	7A
8	N	4B
8	P	5A
8	Q	4B
8	R	8A

731 I-O MAGNET - CONTACT LOCATIONS

NAME	MAGNET	CONTACTS			
		1	2	3	4
ON/OFF		1A	1A		
R1	18A	7B		14B	14B
R2A	18A	7B		14B	14B
R2	18A	7B		13B	13B
R5	18A	7B		14B	14B
T1	18A	7A		13B	13B
T2	18A	7A		13B	13B
CHECK	18A	7A		13B	13B
TAB	18B	7A	7B	7A	
SPACE	18B	7B	7B	7A	
BACKSPACE	18A			10B	
C6 CAM		9B			
C5 CAM		9B			
C1 CAM		9B			
C2 CAM		9B			
REQUEST KEY		15A			
RELEASE KEY		15A			
CANCEL KEY		15A			
CARRIER RETURN		18B			
KEYBOARD UNLOCK		18B			

SWITCHES

NO.	NAME	PART NO.	LOCATION
1	CHECK	121756	8A
2	T2	121756	8A
3	T1	121756	8A
4	R5	121756	8A
5	R2	121756	8B
6	R2A	121756	8B
7	R1	121756	8B
8B	C E MODE	128455	15A
9A	C E REPLY	128455	3A
9B	C E REPLY	128455	3B
10B	C E REPLY	128455	11A
10A	C E REQUEST	128455	16A
11A	DATA CHECK HOLD	128455	13A
11B	DATA CHECK HOLD	128455	15B
12A	RESET	368433	2A
12B	RESET	368433	2A
	FORMS	1128987	16B

DISPLAY HOUSING LIGHTS

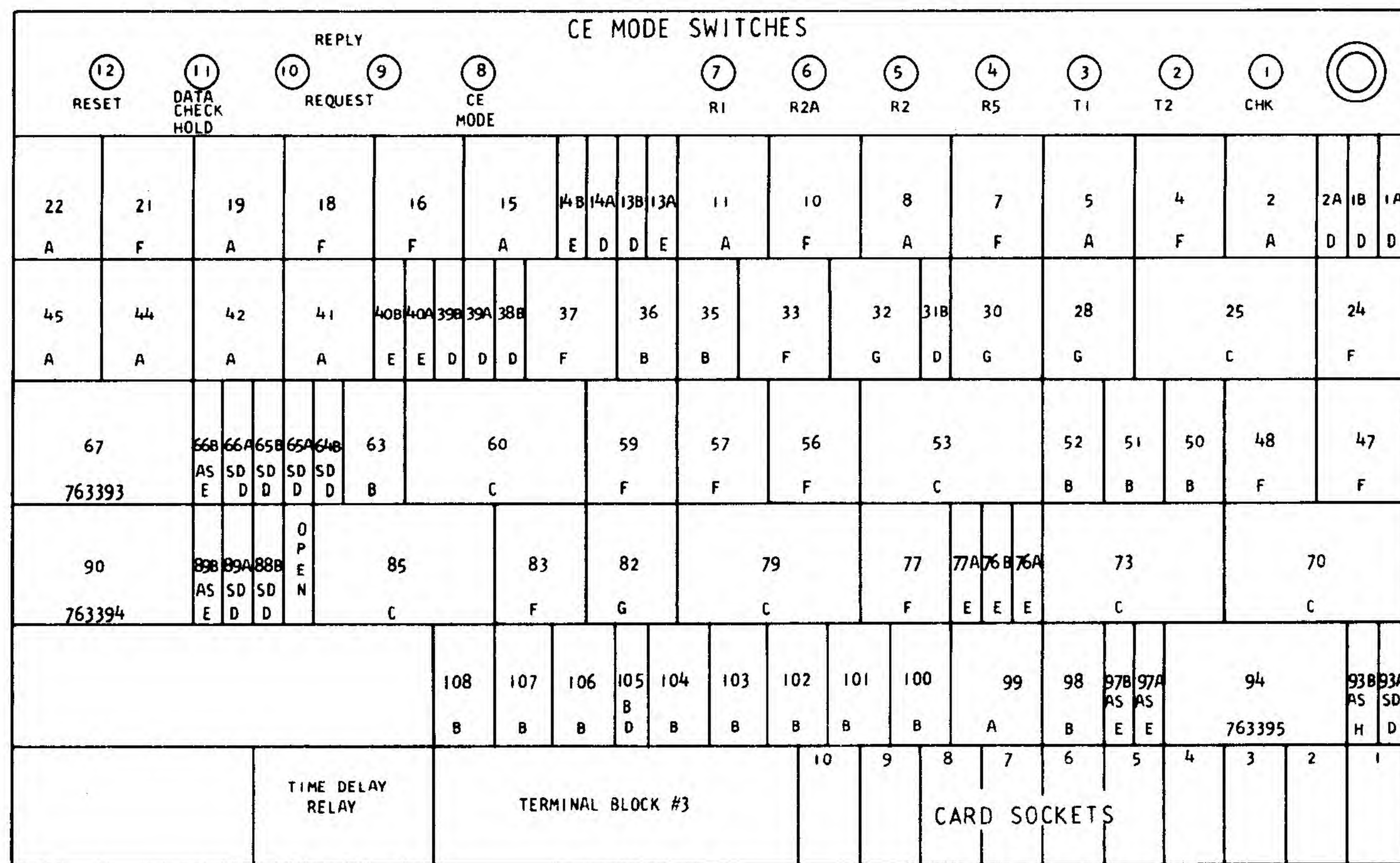
NAME	VOLTS	BULB PART NUMBER	LOCATION
REQUEST	12	719293	16A
PROCEED	12	719293	16B
EXCEED SPEED	12	719293	16B
FORMS	12	719293	16B
DATA CHECK	12	719293	16B

TB3

NO.	LOC
4	2A
5	2B
6	2A
7	2A
9	2B
10	2B

RELAY GATE LOCATIONS
RELAY SIDE

DATE	CHANGE NO.
11-7-62	1151808
2-25-63	115210
3-26-63	115211



HINGE
SIDE

+48V DC POINT TO POINT WIRING

RELAY GATE COMPONENTS			
CODE	SIZE	PART NUMBER	QTY
A	6	311714	11
B	4	196208	14
C	12	255735	7
D	2	222355	17
E	2	442497	11
F	6	196198	17
G	6	311715	4
H	2	328601	1

POINT	LOC	POINT	LOC
8B SW	15A	63-1 OP	15A
10B SW	11A	70-11 OP	13A
11B SW	15B	70-10 OP	10A
12A SW	2A	70-8 OP	11A
5-5 OP	11B	73-9 OP	10A
8-5 OP	11B	79-8 OP	5B
11-5 OP	11B	79-7 OP	7B
15-5 OP	11B	85-7 OP	7B
15-2 OP	13B	85-5 OP	13A
19-5 OP	11B	85-4 OP	11A
19-2 OP	13B	93-8 C	3B
22-5 OP	11B	94-5 U	5A
24-5 OP	15A		
24-2 OP	15B		
25-12 W/O	15B	100-4 OP	3B
30-5 OP	5A	100-2 OP	18B
36-2 OP	15B	101-2 OP	11B
41-6 OP	17B	100-3 OP	
		105B3 AN	
44-1 OP	9B	106-P	
50-1 OP	15B	107-4 OP	10A
51-1 OP	15B	CS04K	9A
52-2 OP	7B	CS05R	9B
53-9 OP	15B	CS08P	5A
53-8 OP	10A	CS08G	7A
53-3 OP	11A	CS08E	7A
53-2 OP	15B	CS10G	5B
56-4 OP	7A		
56-3 OP	11A		
56-2 OP	15B		
57-5 OP	7B		
60-9 N/O	17B		
60-6 OP	7A		
60-2 OP	15B		
63-3 OP	11A		

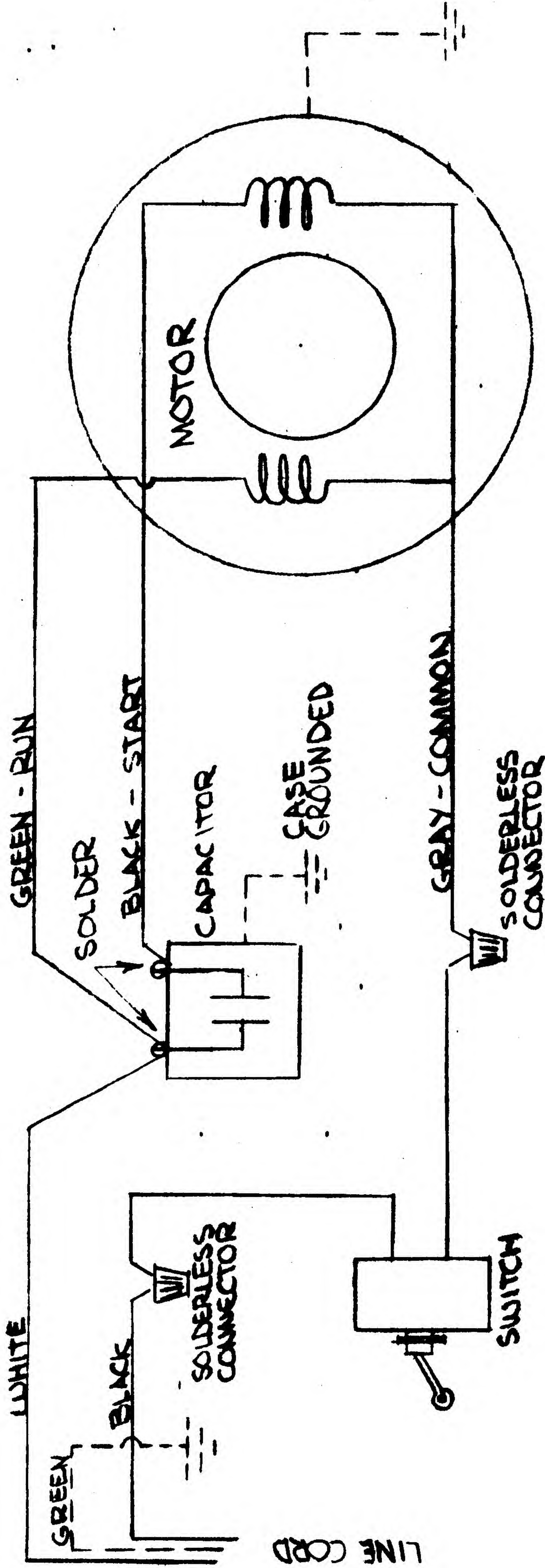
DC COMMON POINT TO POINT WIRING

POINT	LOC	POINT	LOC	POINT	LOC
CS01F	16A	66 BC	16A	35 HC	10A
CS08N	4B	65A3CA	4B	36 PC	14B
CS08J	4A	63 HC	16A	36 HC	10A
CS08A	8A	63 PC	16A	37 PC	10B
CS10N	6A	60 HC	16A	37 HC	12A
CS10K	6B	60 PC	16A	39B1 AN	4B
TB3-7	2A	59 HC	16B	40 AC	12A
TDR PC	8B	59 PC	16B	40 BC	10A
108 HC	8B	57 HC	16B	41 PC	10A
108 PC	8B	57 PC	12B	41 HC	10A
107 HC	10A	56 HC	16A	42 PC	10A
106 HC	6B	56 PC	16A	42 HC	10B
		53 HC	16A	44 PC	10B
104 PC	12A	53 PC	16A	44 HC	10B
103 HC	12A	52 HC	8B	45-6 N/C	14B
102 HC	8B	52 PC	12A	45 HC	14B
102 PC	8B	51 HC	16B	2 HC	14A
101 HC	8B	51 PC	12A	4 PC	12B
101 PC	12A	50 HC	16B		
100 HC	18B	48 HC	16B	5 HC	14A
100 PC	18B	48 PC	16B	7 PC	12B
99-5 N/C	10A	47 HC	12B	8 PC	8A
99 HC	10A	47 PC	12B	8 HC	14A
98 HC	18B	24 HC	16A	10 HC	12B
98 PC	18B	25 HC	16A	11 PC	8A
97 BC	12B	28 PC	6B	11 HC	14A
97 AC	5A	28 HC	6B	13 AC	8A
94-12C	6B	30 PC	6A	14 BC	8B
90-3C	4B	30 HC	6B	15 PC	8B
89 BC	12A	32 PC	6A	15 HC	14A
85 HC	12A	32 HC	6A	16 HC	12B
85 PC	12A	33 PC	14B	18 HC	12B
85-10 OP	8A	33 HC	10A	19 PC	8B
83 P	4B	35 PC	14B	19 HC	14A
83 HC	12A			21 HC	12B
82 PC	6A			22 PC	8B
79 HC	6B			22 HC	14A
79 PC	4B				
77 HC	6B				
77 PC	6B				
77 AC	16B				
76 BC	12B				
76 AC	12B				
73 HC	6B				
73 PC	6B				
70 HC	6B				
70 PC	6B				
67 C	16B				

STANDARDS CODE		TECHNICAL SERVICES APPRO		SYM	DATE	CHANGE NO	TECH APPRO	SYM	DATE	CHANGE NO	TECH APPRO	DEVELOPMENT NO	Q/A
ELEC					4-3-64	89816							
MET													
PLASTIC													
FINISH													
RELEASED FOR ASM													
QTY													
1272237													

REFERENCE DRAWING

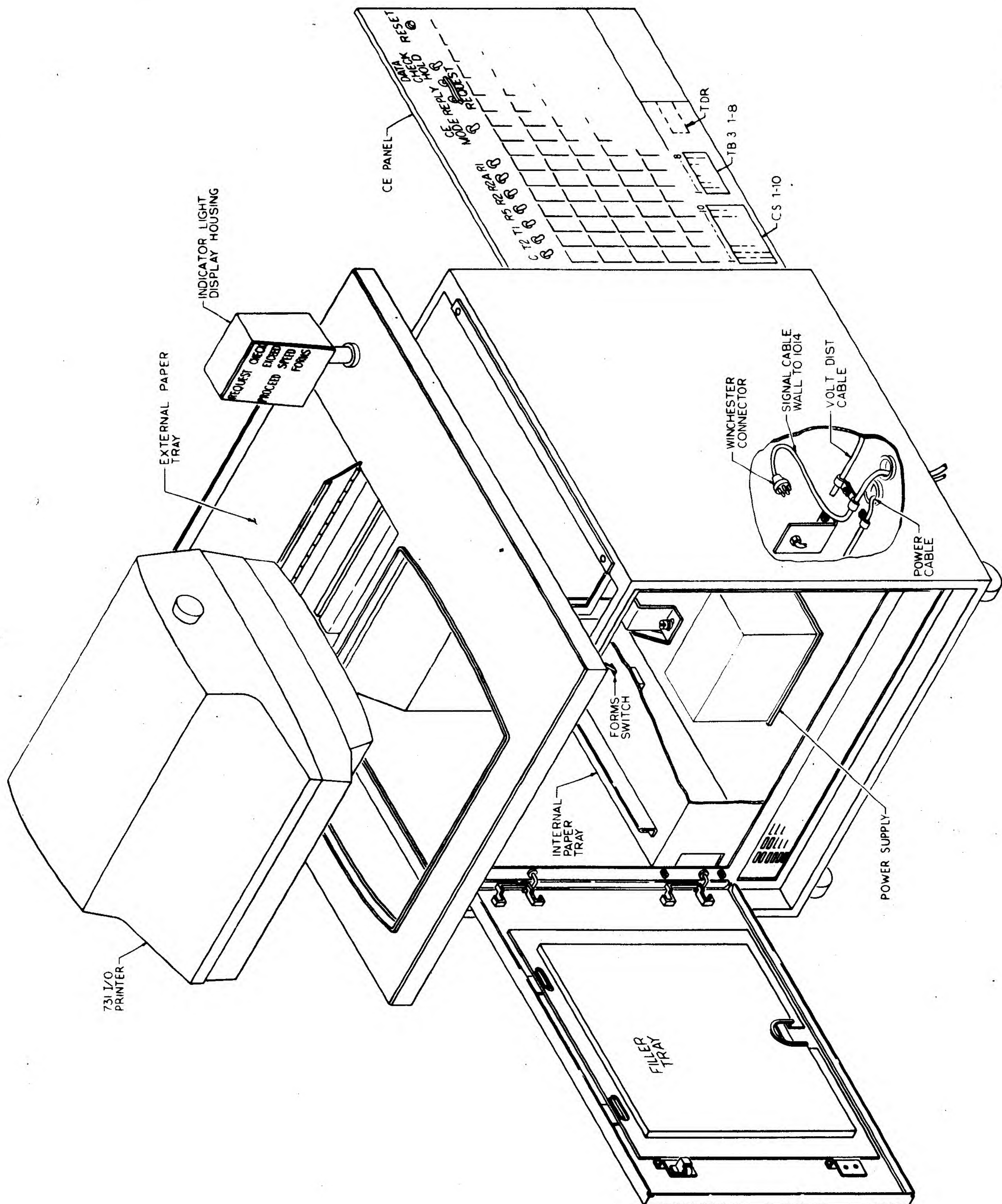
OBSOLETE



IBM MATERIAL NO		TOLERANCE UNLESS OTHERWISE NOTED		MUST CONFORM TO ENG SPEC 890350		INTERNATIONAL BUSINESS MACHINES CORP	
CASE DEPTH		2 PLACE DEC ±		ALIGNMENT WITHIN		NAME WIRING DIAGRAM -	
HARDNESS		3 PLACE DEC ±		CONC TO DU WITHIN		CAPACITOR START MOTOR	
SURFACE TREATMENT		ANGLES ±		FLAT WITHIN		DESIGN WES 3-31-64 TYPE 73 X	
		CORNERS AND/OR EDGES BROKEN		PARALLEL TO DU WITHIN		DETAIL WES 3-31-64 SCALE NONE	
		OUTSIDE		STRAIGHT WITHIN		CHECK DMB 4-1-64 DRAW WES 3-31-64	
		INSIDE		SQUARE TO DU WITHIN		APPRO HST 4-1-64 CHECK PDR 4-3-64	
1272221		A					

732017

DATE	CHANGE NO.
11-7-62	115180B
2-25-63	115210



A

B

INTERNATIONAL BUSINESS MACHINES CORP				
NAME	1014 REMOTE INQUIRY			
UNIT REFERENCE				
DESIGN	RWK	7-12-62	TYPE	1014
DETAIL			SCALE	NONE
CHECK	RS	7-12-62	DRAW	
APPRO	HAR	7-12-62	CHECK	